REMARKS

In response to the non-final Office Action mailed on May 18, 2005, Applicant respectfully requests reconsideration of all rejections in the outstanding Office Action in view of the foregoing amendments and following remarks. Claims 1-52 are currently pending.

I. Request For Interview

In the event that there are any issues left unresolved by this Reply, the Examiner is requested to contact the undersigned to schedule a telephone interview prior to issuance of another Office Action. The undersigned can be reached at the number listed below.

II. Objection to Specification

On page 2 of the Office Action, the abstract is objected to because of the use of certain acronyms. Applicant has amended the abstract to address such and respectfully requests the Examiner to withdraw the objection.

The disclosure is also objected to because of a misspelling on page 9, line 24, and use of the term "Biggest picker" on page 15, lines 5 and 6. The respective paragraphs have been amended accordingly. Applicant respectfully requests the Examiner to withdraw the objection.

III. Allowable Subject Matter

Applicants note with appreciation the indication on page 8 of the Office Action that claims 11, 17, 18, 25, 26, 34, 36, 40, 41, 44, 46, 50, and 51 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have opted to defer rewriting the above-identified claims in independent form pending reconsideration of the arguments presented below with respect to the rejected independent claims.

IV. Claim Objections

On page 2 of the Office Action, claims 12 and 13 are objected to for the use of acronyms BPSK and QPSK. Applicant has amended these claims to define these acronyms and respectfully requests the Examiner to withdraw the objection.

V. The Anticipation Rejection Of Claims 1, 2, 4-9, 13-15, 28-33, 35, 37, And 38

Claims 1, 2, 4-9, 13-15, 28-33, 35, 37, and 38 stand rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 6,134,215 to Agrawal *et al.* ("Agrawal"). *See* Office Action at page 3. Particularly, the Examiner contends that Agrawal discloses every

limitation recited in these claims. Applicant respectfully disagrees and submits that the rejection is unsustainable in view of the following remarks.

As stated in MPEP § 2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed Cir. 1987).

A. Agrawal Fails To Disclose "encoding data with n-bit orthogonal codes"

Agrawal fails to disclose each and every element of claim 1. Particularly, Agrawal fails to disclose "encoding data with n-bit orthogonal codes" as recited in claim 1.

1. "Channelizing" An Information Signal Is Not Equivalent To Encoding Data With Orthogonal Codes As Claimed

Referring to Fig. 2a and col. 7, lines 17-26, Agrawal discloses an information signal S(t) that is channelized through multiplication with a Walsh function W(t). A Walsh code generator 206 generates an orthogonal covering code desired for channelizing the signal. The code $W_i(t)$ from generator 206 is multiplied by or combined with the symbol data in a logic element 202. Accordingly, Agrawal's channelizing process implements one time-dependent orthogonal Walsh code.

To the contrary, the claimed "encoding data" step is a time independent process and rather selects Walsh codes based on the data encoded. Thus, the step of encoding data is dependent as opposed to time dependent in Agrawal. For example, referring to Fig. 7 and page 10, line 12 *et seq.*:

> **Fig. 7** illustrates a parallel spread spectrum system 700 with a single channel according to an embodiment of the invention. Incoming data 772 is scrambled by a scrambler 710 to spectrally whiten and remove any DC offset from the data. In this embodiment of the invention, orthogonal Walsh functions are used to encode and spread the data stream with a Walsh encoder 720. The resulting data is segmented into four (4) bit nibbles with three (3) bits defining magnitude and the remaining bit designating sign. The magnitude bits identify one of eight (8) Walsh codes and the sign bit defines whether a true or inverted Walsh code is selected.

Here, the incoming data 772 is encoded by selecting one of 2^n Walsh codes (in this case n=3) based on the incoming data 772 rather than based on time. Encoding is performed by a Walsh encoder 720. Orthogonality is therefore maintained between the encoded data to achieve an

increase in processing gain, and hence transmission distance. *See, e.g.*, Applicant's Summary of the Invention.

Agrawal does not encode the information signal S(t) using orthogonal codes. Agrawal does not disclose an encoder, but rather a multiplier 202 in Fig. 2A. Agrawal is merely "covering" the information signal S(t) on a particular channel (hence, the term "channelizing") with one Walsh code (which can vary as a function of time) selected from a set of Walsh codes. *See* Agrawal at col. 4, lines 59-62. Another channel uses a different Walsh code. Hence, different channels (i.e., transmitters) can employ the same spreading code. *Id.* at col. 3, line 13. Agrawal is not concerned with orthogonality among the covered data on the same channel.

Claims 2 and 4-6 are not anticipated by Agrawal at least because they depend from independent claim 1.

B. Agrawal Fails To Disclose "encoding data with n-bit orthogonal codes"

Agrawal fails to disclose each and every element of independent claims 7, 28, and 33. Particularly, Agrawal fails to disclose "encoding a data stream according to a primary orthogonal encoding scheme employing primary codes" as recited or similarly recited in claims 7, 28, and 33. *See* Remarks § I.A.1, supra. Claims 8, 9, 13-15, 29, 30, 35, 37, and 38 are not anticipated by Agrawal at least because they depend from one of independent claims 7, 28, or 33.

VI. The Anticipation Rejection Of Claims 16 And 39

Claims 16 and 39 stand rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 6,212,222 to Okubu *et al.* ("Okubu"). *See* Office Action at page 4. Particularly, the Examiner contends that Okubu discloses each and every limitation of these claims. Applicant respectfully disagrees and traverses this rejection at least as follows.

Okubu fails to disclose "receiving a parallel spread spectrum communication signal" as claimed. Okubu discloses parallel transmission using identical spreading codes. *See* Okubu, abstract. To the contrary, "a parallel spread spectrum communication signal" is a data signal encoded by an encoding scheme employing orthogonal codes, which is then spread using a spreading sequence. *See, e.g.*, Applicant's Specification at page 5. Okubu fails to disclose such or cure the deficiencies noted with respect to Agrawal.

Applicant respectfully requests the Examiner to withdraw the rejection of claims 16 and 39.

VII. The Anticipation Rejection Of Claims 20-24 and 27

Claims 20-24 and 27 stand rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent Application No. 2002/0003786 to Kim *et al.* ("Kim"). *See* Office Action at page 4. Particularly, the Examiner contends that Kim discloses each and every limitation of these claims. Applicant respectfully disagrees and traverses this rejection at least as follows.

Kim fails to disclose "receiving a parallel spread spectrum communication signal at a first receiver" as claimed in independent claim 20. Kim discloses encoding data by spreading and then scrambling. *See* Kim, paragraph 7. To the contrary, "a parallel spread spectrum communication signal" is a data signal encoded by an encoding scheme employing orthogonal codes, which is then spread using a spreading sequence. *See, e.g.*, Applicant's Specification at page 5. Kim fails to disclose such or cure the deficiencies noted with respect to Agrawal.

Applicant respectfully requests the Examiner to withdraw the rejection of claim 20 and all claims dependent therefrom, *i.e.*, 21-24 and 27.

VIII. The Obviousness Rejections

Claim 3 stands rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Agrawal. *See* Office Action, page 5. Claims 10 and 12 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Agrawal in view of U.S. Patent No. 6,075,793 to Schilling *et al.* ("Schilling"). *See id. at* page 6. Claims 19 and 42 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Okubu in view of Agrawal. *See id. at* page 7. Claims 43, 45, 47, 48, 49, and 52 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Kim in view of Agrawal. *See id.*

As stated in MPEP § 2143.01, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As noted above, the cited references, either taken alone or in combination with one another, fail to teach or suggest all the limitations found in the independent claims. Claims 3, 10,

12, 19, 42, 43, 45, 47, 48, 49, and 52 are not obvious at least because they depend from one of the nonobvious independent claims. Accordingly, the Examiner is requested to withdraw these obviousness rejections.

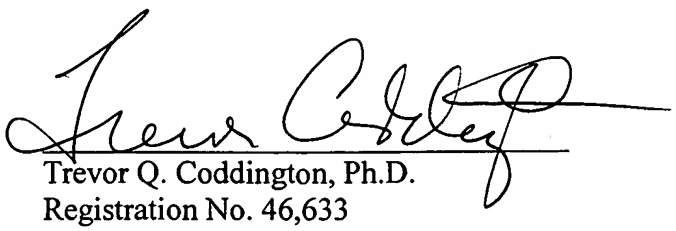
II. Conclusion

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

Applicant is concurrently filing herewith a Petition for a Three-Month Extension of Time, along with the requisite fee. In the event that a variance exists between the amount tendered and that required by the U.S. Patent and Trademark Office requires to enter and consider this Reply, or to prevent abandonment of the present application, please charge or credit such variance to the undersigned's Deposit Account No. 50-2613 (Order No. 58685.00009.UTL).

Respectfully submitted,

November 18, 2005

By: 
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